## A Performance Driven Approach for Hardware Synthesis of Guarded Atomic Actions

by

## Daniel L. Rosenband

Bachelor of Science, Computer Science and Engineering Massachusetts Institute of Technology, 1997

Master of Engineering, Electrical Engineering and Computer Science Massachusetts Institute of Technology, 1998

Submitted to the Department of Electrical Engineering and Computer Science in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

at the

## MASSACHUSETTS INSTITUTE OF TECHNOLOGY

August 2005

© Massachusetts Institute of Technology 2005. All rights reserved.

Author Department of Electric	cal Engineering and Computer Science August 26, 2005
Certified byJohnson Professor of Electric	Arvind cal Engineering and Computer Science Thesis Supervisor
Accepted by	Arthur C. Smith nent Committee on Graduate Students